

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Community Knowledge, Perceptions and Practices around COVID-19 in Sierra Leone: a nationwide, cross-sectional survey
AUTHORS	Sengeh, Paul; Jalloh, Mohammad; Webber, Nance; Ngobeh, Ibrahim; Samba, Thomas; Thomas, Harold; Nordenstedt, Helena; Winters, Maike

VERSION 1 – REVIEW

REVIEWER	Prisca Oria Kenya Medical Research Institute, Kenya
REVIEW RETURNED	23-May-2020

GENERAL COMMENTS	<p>This is a very well-written, timely and important article.</p> <p>Minor suggestions for improving it:</p> <ol style="list-style-type: none">1. This is a knowledge, attitudes and practices (KAP) survey and the authors refer to a KAP survey in many, but not all instances. In the title, for instance, (line1) the knowledge aspect is left out. Another place where this occurs is line 201.2. ODK (line 115) is Open Data Kit, and not open development kit as is currently stated3. The authors do not mention obtaining informed consent from study participants. Does this mean they did not obtain it or it was waived and they did not state that?4. There are minor editing needs in lines 213, 219 and 275.
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REVIEWER	Guillermo Z. Martínez-Pérez University of Zaragoza, Spain
REVIEW RETURNED	11-Jun-2020

GENERAL COMMENTS	<p>Thank you for the opportunity to review this article, which is beautifully written, and I think it should be published after some improvement is done on it. Overall, I think it is important to count on accurate data from low-income countries on Covid19 prevention knowledge and attitudes that are collected right at the start of the pandemic.</p> <p>Whilst I see merit in how prompt this survey was done, and in how many adults the survey team managed to attract as respondents, some further work needs to be done in this article before it is published.</p> <p>I have three major concerns that need to be addressed by the authors, and a number of suggestions and recommendations that are inserted as comments in attached revised pdf.</p> <p>My major concerns are:</p> <ul style="list-style-type: none">- This article is sex & gender blind. The data that are presented in the Results section need to be described narratively in a sex-
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	<p>disaggregated manner. Sex & Gender-specific findings need to be discussed in the Discussion section. The authors need to explain in the Methods section how they considered gender in their study design choices.</p> <ul style="list-style-type: none"> - Description of ethics is insufficient and non-satisfactory. The authors only state that ethics permission was obtained. They also need to describe, at least, informed consent procedures and social harm mitigation measures (e.g. how they tried to avoid that neighbors of respondents in rural areas did not think of respondents as actual CoVid19 patients?) - The conclusion, both in the abstract and in the body of the article, needs to be rewritten. The authors need to be more ambitious in their conclusion on what the main impact of their survey was. One does not spend resources to reach over 1,000 persons to conclude that radio and social media might be used. In their work, there are other interesting findings and implications for practice that could be stated in the Conclusion. <p>Other more cosmetic suggestions are included in the pdf for authors to consider should they deem them necessary.</p>
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REVIEWER	Lonozou Kpanake University of Quebec – TELUQ
REVIEW RETURNED	15-Jun-2020

GENERAL COMMENTS	<p>This is an excellent short paper on community perceptions and practices around COVID-19 in Sierra Leone. It concerns a topic that is all too often neglected in favor of papers that address issues of etiology, epidemiology, and clinical significance. Overall, the paper is organized and clearly written.</p> <p>Additional background context regarding information sources in Sierra-Leone is needed for a better understanding of their role in health-related knowledge and attitudes.</p> <p>Please provide some examples of the questions regarding each indicator (awareness, knowledge, practices, information sources) in the Method section.</p> <p>Page 7, Line 216-217: "Whereas covid-19 has a mortality rate that is much lower than Ebola, [...]". Please be more specific, provide fatality rates of Ebola and COVID-19.</p> <p>It is unlikely that each of the 14 enumerators could speak all the languages spoken in Sierra Leone. How could they translate the questionnaire when they did not speak the participant's language?</p> <p>Table 3 shows a significant effect of region on Covid-19 knowledge. This result is highly salient and the authors should reflect on it.</p> <p>A significant segment of the participants (32%) received no formal education and could not read the questionnaire. The authors mentioned that the enumerators translated the questions into local languages. It is important that the authors reflect on translation bias in these cases.</p> <p>I would have preferred to have seen the questionnaire used for the study (at least as an appendix) for a better understanding of the method. In addition, the questionnaire being publicly available would</p>
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	permit other researchers to duplicate the methods in neighboring countries of Sierra Leone.
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Reviewer Name

Prisca Oria

Institution and Country

Kenya Medical Research Institute, Kenya

Please state any competing interests or state 'None declared':

None declared

Please leave your comments for the authors below

This is a very well-written, timely and important article.

Minor suggestions for improving it:

1. This is a knowledge, attitudes and practices (KAP) survey and the authors refer to a KAP survey in many, but not all instances. In the title, for instance, (line1) the knowledge aspect is left out. Another place where this occurs is line 201.

We updated the title to reflect the knowledge aspect as well, and we edited line 201 further to reflect the KAP components.

2. ODK (line 115) is Open Data Kit, and not open development kit as is currently stated

Thank you, this has been updated.

3. The authors do not mention obtaining informed consent from study participants. Does this mean they did not obtain it or it was waived and they did not state that?

Enumerators first explained the study and what it meant to participate, after which informed consent was obtained – captured on the tablets. We have updated that in the manuscript.

4. There are minor editing needs in lines 213, 219 and 275.

Thank you, we have now edited the sentences.

Reviewer: 2 **Please see attachment for further comments from this reviewer**

Reviewer Name

Guillermo Z. Martínez-Pérez

Institution and Country

University of Zaragoza, Spain

Please state any competing interests or state 'None declared':

none declared

Please leave your comments for the authors below

Thank you for the opportunity to review this article, which is beautifully written, and I think it should be published after some improvement is done on it. Overall, I think it is important to count on accurate data from low-income countries on Covid19 prevention knowledge and attitudes that are collected right at the start of the pandemic.

Whilst I see merit in how prompt this survey was done, and in how many adults the survey team managed to attract as respondents, some further work needs to be done in this article before it is published.

I have three major concerns that need to be addressed by the authors, and a number of suggestions and recommendations that are inserted as comments in attached revised pdf.

My major concerns are:

1. This article is sex & gender blind. The data that are presented in the Results section need to be described narratively in a sex-disaggregated manner. Sex & Gender-specific findings need to be discussed in the Discussion section. The authors need to explain in the Methods section how they considered gender in their study design choices.

Thank you for pointing this out. The enumerators were instructed to keep a gender balance in mind when recruiting participants, so that by the end of a fieldwork day they roughly had 50-50% men and women. We have added a table in the supplementary material with the disaggregated proportions for the core indicators. For most of the indicators there was no significant difference between men and women. Interestingly, there was difference on knowledge about covid-19 survival and taking any action to prevent infection – whereby more men than women knew/did so. We have added this to the results and the discussion.

2. Description of ethics is insufficient and non-satisfactory. The authors only state that ethics permission was obtained. They also need to describe, at least, informed consent procedures and social harm mitigation measures (e.g. how they tried to avoid that neighbors of respondents in rural areas did not think of respondents as actual CoVid19 patients?)

This is a very important point that we should have clarified further in the paper. We have now added a more detailed description of the consent process in the Methods section. In short, enumerators would explain the study to the targeted participant, after which informed consent would be obtained (see the sample text of the study explanation and consent form in the supplementary material). Enumerators were dressed in normal clothing, wearing identity badges from FOCUS1000, so that they could not be mistaken for health personnel by community members. At the beginning of the interview, questions were asked about covid-19 symptoms (see Q4 of the questionnaire in the supplementary material). If a participant would say he/she had symptoms, the interview would be stopped immediately and the participant would be encouraged to seek medical care immediately.

3. The conclusion, both in the abstract and in the body of the article, needs to be rewritten. The authors need to be more ambitious in their conclusion on what the main impact of their survey was. One does not spend resources to reach over 1,000 persons to conclude that radio and social media might be used. In their work, there are other interesting findings and implications for practice that could be stated in the Conclusion.

Thank you for this comment, you are right that we could have stepped it up with the conclusion. We have rewritten most of it, please find it in the manuscript – both the abstract and the final conclusion in order to reflect more on the direct results of the survey.

4. Other more cosmetic suggestions are included in the pdf for authors to consider should they deem them necessary.

Many thanks for that!

Best regards

Reviewer: 3

Reviewer Name

Lonozou Kpanake

Institution and Country

University of Quebec - TELUQ

Please state any competing interests or state 'None declared':

None declared

Please leave your comments for the authors below

This is an excellent short paper on community perceptions and practices around COVID-19 in Sierra Leone. It concerns a topic that is all too often neglected in favor of papers that address issues of etiology, epidemiology, and clinical significance. Overall, the paper is organized and clearly written.

1. Additional background context regarding information sources in Sierra-Leone is needed for a better understanding of their role in health-related knowledge and attitudes.

More contextualization regarding information sources in Sierra Leone is now given in the Introduction.

2. Please provide some examples of the questions regarding each indicator (awareness, knowledge, practices, information sources) in the Method section.

Thank you for this comment, we have added example questions of this in the Methods section. The full questionnaire is now available in the supplementary material.

3. Page 7, Line 216-217: "Whereas covid-19 has a mortality rate that is much lower than Ebola, [...]". Please be more specific, provide fatality rates of Ebola and COVID-19.

Mortality rates/estimates have been added to the manuscript.

4. It is unlikely that each of the 14 enumerators could speak all the languages spoken in Sierra Leone. How could they translate the questionnaire when they did not speak the participant's language?

Thank you for this comment. The enumerators were district-based staff of FOCUS1000 - they live in each of the 14 districts of Sierra Leone and speak the local languages of their district. Enumerators were dispatched to areas corresponding to their language skills. Because most local languages are more spoken rather than written languages, the original questionnaire is in English. During the training each of the questions would get translated to the local languages and practiced until the enumerators in charge of a language would be proficient in the translations. A limitation is that some of the translations might not have been consistent – this was mitigated as much as possible through training and by supervision during the field work. We updated this in the Methods and Discussion sections.

5. Table 3 shows a significant effect of region on Covid-19 knowledge. This result is highly salient and the authors should reflect on it.

Thank you for pointing this out. We don't have a definitive answer on this, but we can provide a few ideas as to why the differences are so large between regions. The Southern Province has the second highest use of media (listening to radio, use of mobile phones) in the country, which might have exposed the general public to more information about the ongoing covid-19 pandemic. Furthermore, the presence of a university in the Southern Province might also have influenced the awareness of the pandemic. We have added notes on this in the discussion.

6. A significant segment of the participants (32%) received no formal education and could not read the questionnaire. The authors mentioned that the enumerators translated the questions into local languages. It is important that the authors reflect on translation bias in these cases.

This is a very important point, thank you for asking this. The survey was done orally, so the enumerators (trained in the local languages) would hold the tablet and ask the questions. Participants did not see the questions, they simply listened and answered the question, the enumerator would then tick the corresponding box on the tablet. We have clarified this in the Methods section.

7. I would have preferred to have seen the questionnaire used for the study (at least as an appendix) for a better understanding of the method. In addition, the questionnaire being publicly available would permit other researchers to duplicate the methods in neighboring countries of Sierra Leone.

Thank you for this suggestion. We agree and have created a file for supplementary material and added the questionnaire in there.

VERSION 2 – REVIEW

REVIEWER	Prisca Oria Kenya Medical Research Institute, Kenya
REVIEW RETURNED	21-Aug-2020

GENERAL COMMENTS	I am satisfied with the author responses to the review questions I had previously raised.
REVIEWER	Lonzozou Kpanake University of Quebec - TELUQ Canada
REVIEW RETURNED	11-Aug-2020
GENERAL COMMENTS	The authors have satisfactorily addressed my comments.

VERSION 2 – AUTHOR RESPONSE

Comment 1:

It is not necessary to include the ethical approval document. As this is a confidential document, we would recommend removing the citation to it and removing the document. The statement "The Sierra Leone Research and Scientific Review Committee granted ethical permission for this KAP study" should remain.

Thank you for noticing this, we have removed the ethical approval document from the supplementary material.

Comment 2:

Please ensure a distinct Patient and Public Involvement section is contained with its own subheading within the methods. This section should only contain a statement about whether or not there was PPI. The paragraph you include related to PPI on page 4 can remain as it is (as this contains other important information related to the methodology).

We have added a separate Patient and Public Involvement section at the end of the Methods:

'Patient and public involvement

Patients or the public were not involved in the design, or conduct, or reporting, or dissemination plans of our research.'